

# Montana Hospital Discharge Data System

Dataset orientation for AAPC Chapter Meeting,  
October 2015

The Montana Hospital Discharge Data System





Making Everything Easier!™

Novelty Edition

# Montana Hospital Discharge Data System

FOR  
**DUMMIES**

## Learn to:

- Use Diagnosis Codes
- Understand Prevention Quality Indicators
- Pronounce Strange Acronyms

Alfred E. Neuman



# Overview

- Inpatient hospitalizations: 2000-2014
- Emergency department encounters: 2010-2014



# Overview

- Data received from Montana's Hospital Association, MHA
  - Inpatient Prospective Payment System (IPPS) Hospitals
  - Most Critical Access Hospitals (CAH)



# Overview

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# Overview

- Three types of elements
  - Demographic (age, sex)
  - Medical (diagnosis (Dx) codes, procedures)
  - Insurance (payer, charges)



# Overview

- Demographics
  - Age
  - Sex
  - Dates of admission





# Overview

- Medical
  - Dx codes (ICD-9-CM): Primary / Eight Secondary
  - Surgical procedures (Inpatient): Principal / Five Secondary
  - CPT procedures (ED): Principal / Five Secondary



# Medical

- Diagnosis Codes
  - Billing
  - Meaningful use
  - Epidemiology



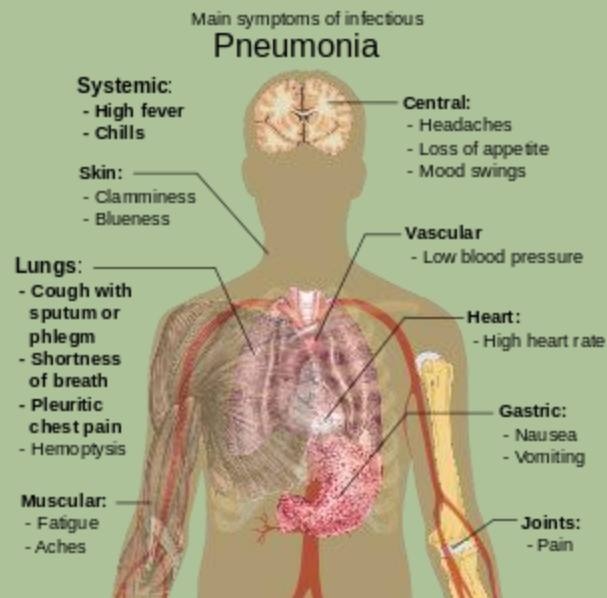
# Medical

- Diagnosis codes (Dx): Why is the patient there



# Medical

- 486: Pneumonia



# Medical

- 250.xx: Diabetes Mellitus



# Medical

- 250.xx: Diabetes Mellitus (4<sup>th</sup> digit)
  - 250.1x: No complication
  - 250.2x: Ketoacidosis
  - 250.3x: Other coma
  - ...
  - 250.9x: Unspecified complication



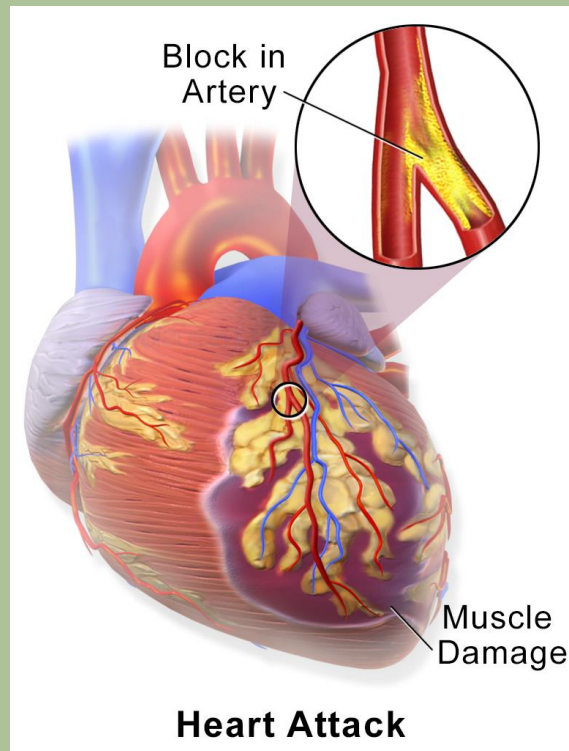
# Medical

- 250.xx Diabetes mellitus (5<sup>th</sup> digit)
  - 250.x0 type II or unspecified type, not stated as uncontrolled
  - 250.x1 type I, not stated as uncontrolled
  - 250.x2 type II or unspecified type, uncontrolled
  - 250.x3 type I, uncontrolled



# Medical

- 410.xx: Acute Myocardial Infarction





# Medical

- ICD-9-CM: <http://www.icd9data.com/>



# Medical

- Primary Diagnosis
  - Chiefly responsible for admission



# Medical

- Secondary diagnosis
  - Conditions that coexist, or develop, that affect treatment or length of stay



# Medical

- ICD-9-CM through Sept 30, 2015
- ICD-10-CM begins Oct 1, 2015



# Medical

- For more information about transition see “[ICD-10 Transition: Challenges and Opportunities for the 21st Century \(May 2015\)](#)”



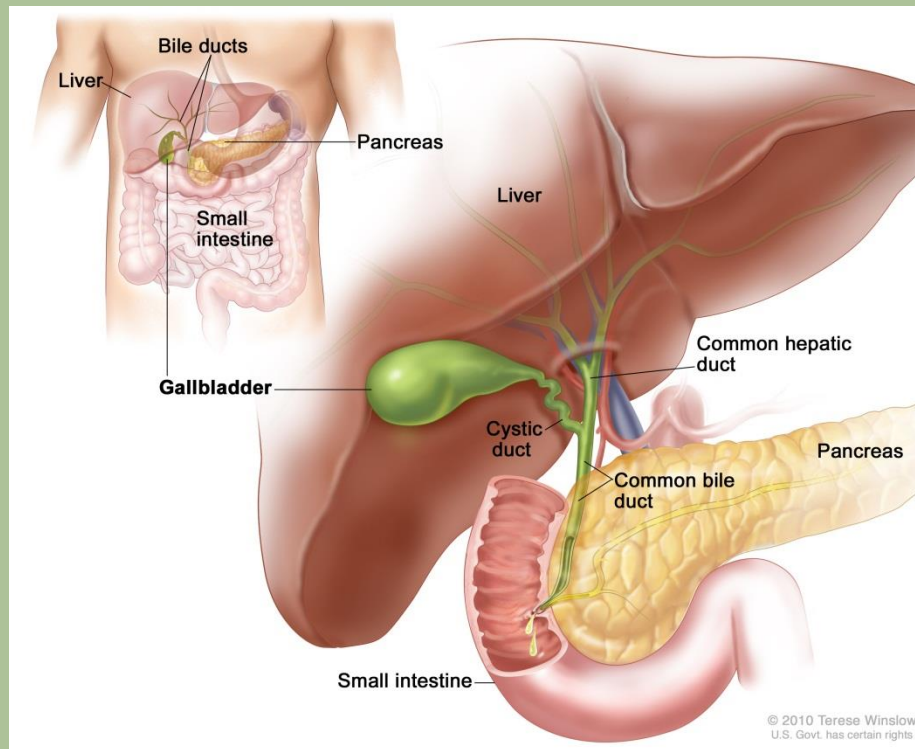
# Medical

- ICD-9 Surgical Procedures (Inpatient):  
What was done to the patient



# Medical

- 51.2x Cholecystectomy



# Medical

- 64.0 Circumcision





# Medical

- 36.14 (Aorto)coronary bypass of four or more coronary arteries



# Medical

- ICD-9 Procedures
  - <http://icd9cm.chrisendres.com/>



# Medical

- Current Procedural Terminology (CPT; ED): What was done to the patient



# Medical

- Evaluation and Management (E/M)
  - 99281 (Least complex) to 99285 (Most complex)



# Medical

- E/M 99281:
  - Exam - problem focused
  - Medical Decision Making – straightforward
  - Presenting Problem – self-limited or minor



# Medical

- E/M 99285:
  - Exam - comprehensive
  - Medical Decision Making – high
  - Presenting Problem – high severity



# Medical

- (CPT; ED):
  - 12001: Simple repair of superficial wounds of scalp, neck, axillae, external genitalia, trunk and / or extremities (including hands and feet); 2.5 cm or less



# Medical

- CPT codes, descriptions and other data only are copyright 2014 American Medical Association. All rights reserved. CPT is a registered trademark of the American Medical Association (AMA).





# Medical

- External Cause of Injury Codes (E-Codes):  
What lead to injury
  - E905.3 Sting of hornets, wasps, and bees

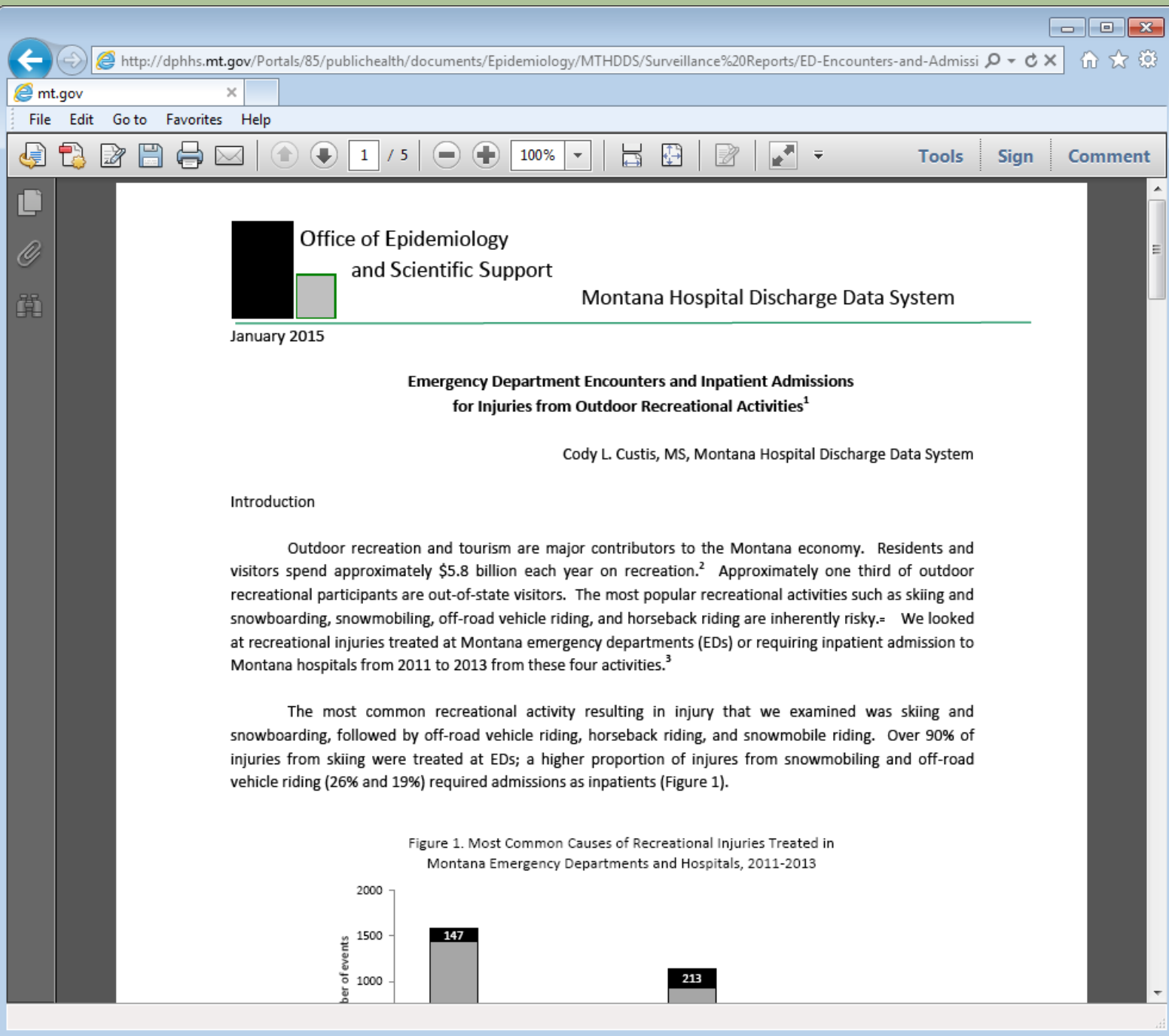




# Medical

- E-codes:
  - As many as describe the injury
  - Place of occurrence
  - Activity status (work, volunteer, military, other)
  - Activity type





# Medical

- Source of admission
  - Point of origin, June 1, 2007
  - ED is no longer a source of admission



# Medical

- Discharge status
  - Routine discharge
  - Discharge to care
  - Expired



# Insurance

- Primary payer
  - Medicare
  - Medicaid
  - Commercial



# Insurance

- Total charges
  - Statewide level
  - Charges, not reimbursement







# Data Use Agreement

- Outlines data use
  - Stored in secure directory
  - Do not release to third parties
  - Guidelines for release



# Data Use Agreement

- Statewide guidelines
  - Rates for 20 or more events
  - Discretionary for less than five



# Data Use Agreement

- Stratified guidelines
  - No counts less than five
  - Institutional confidentiality



# Data Use Agreement

- If it's released to the anyone without an agreement, it's released to the public



# Data Use Agreement

- Focus on the results
  - Table shells
  - Program knowledge



# Data Use Agreement

- Job log
  - *Who* is asking for information?
  - *Why* does the person need information?
  - *What* is given to that person?

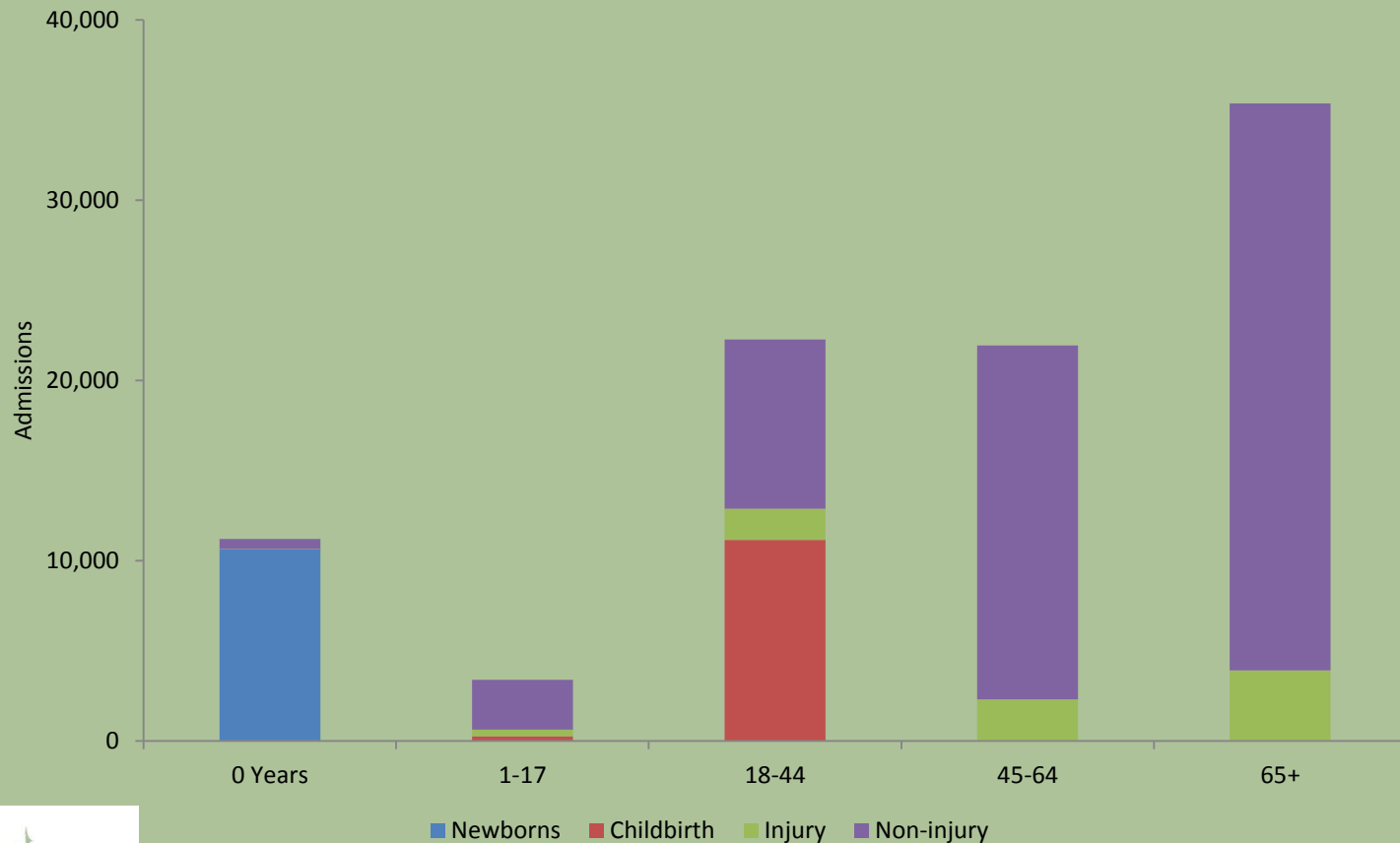






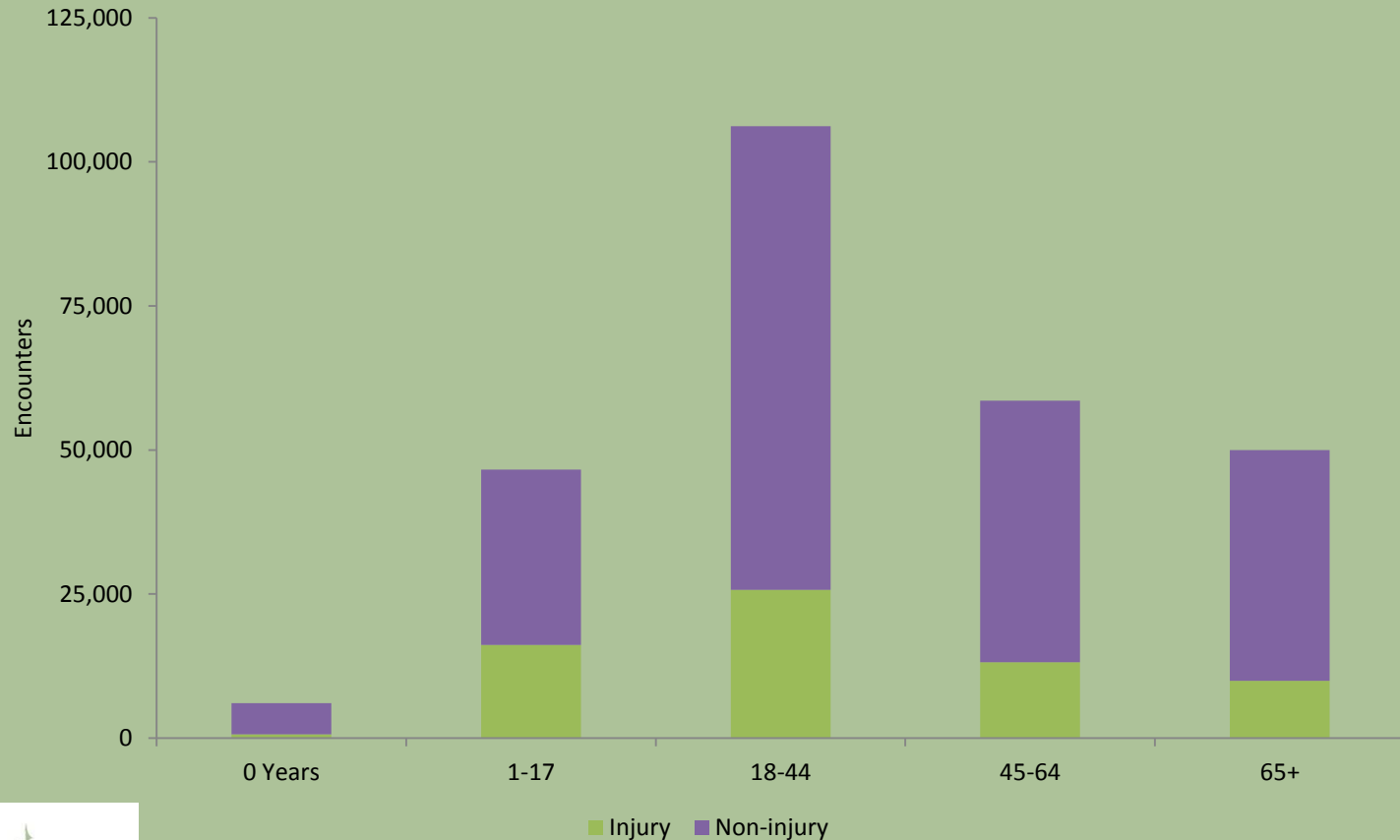
# Basic Analysis

Inpatient Admissions, Montana, 2014, by Type and Age; Montana Hospital Discharge Data System



# Basic Analysis

Emergency Department Encounters, Montana, 2014, by Type and Age; Montana Hospital Discharge Data System





# Previous Uses

- Reports
- Data requests



# Reports

- Neonatal Abstinence Syndrome (NAS)
- Alcohol abuse
- Outdoor recreation
- Non-urgent utilization



# Reports

- Neonatal Abstinence Syndrome
  - Was very rare, still uncommon
  - Charges and length of stay are high



Figure 1. Rate of Newborns with Drug Withdrawal Syndrome (ICD-9-CM: 779.5), Montana Resident Liveborns, 2000-2014

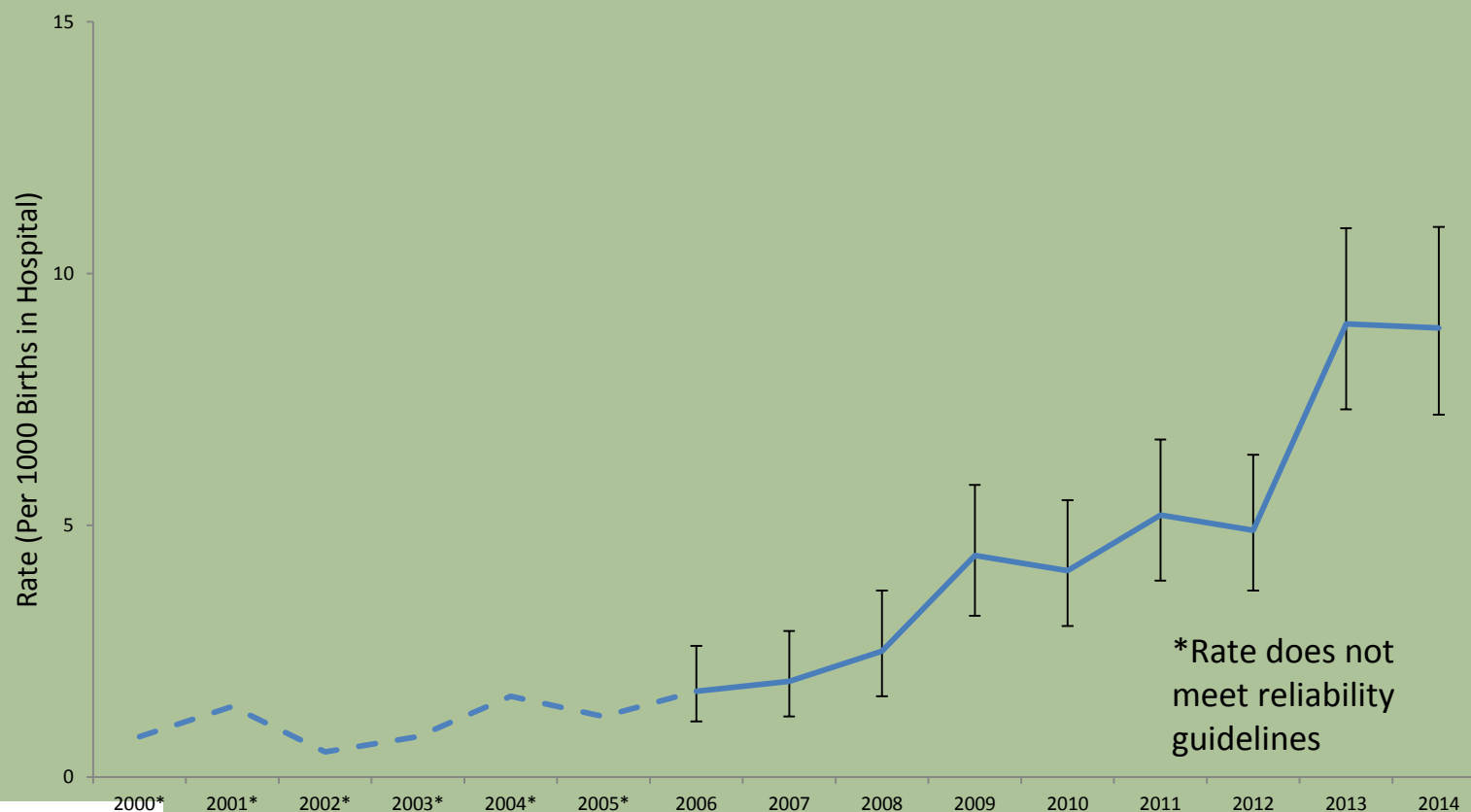
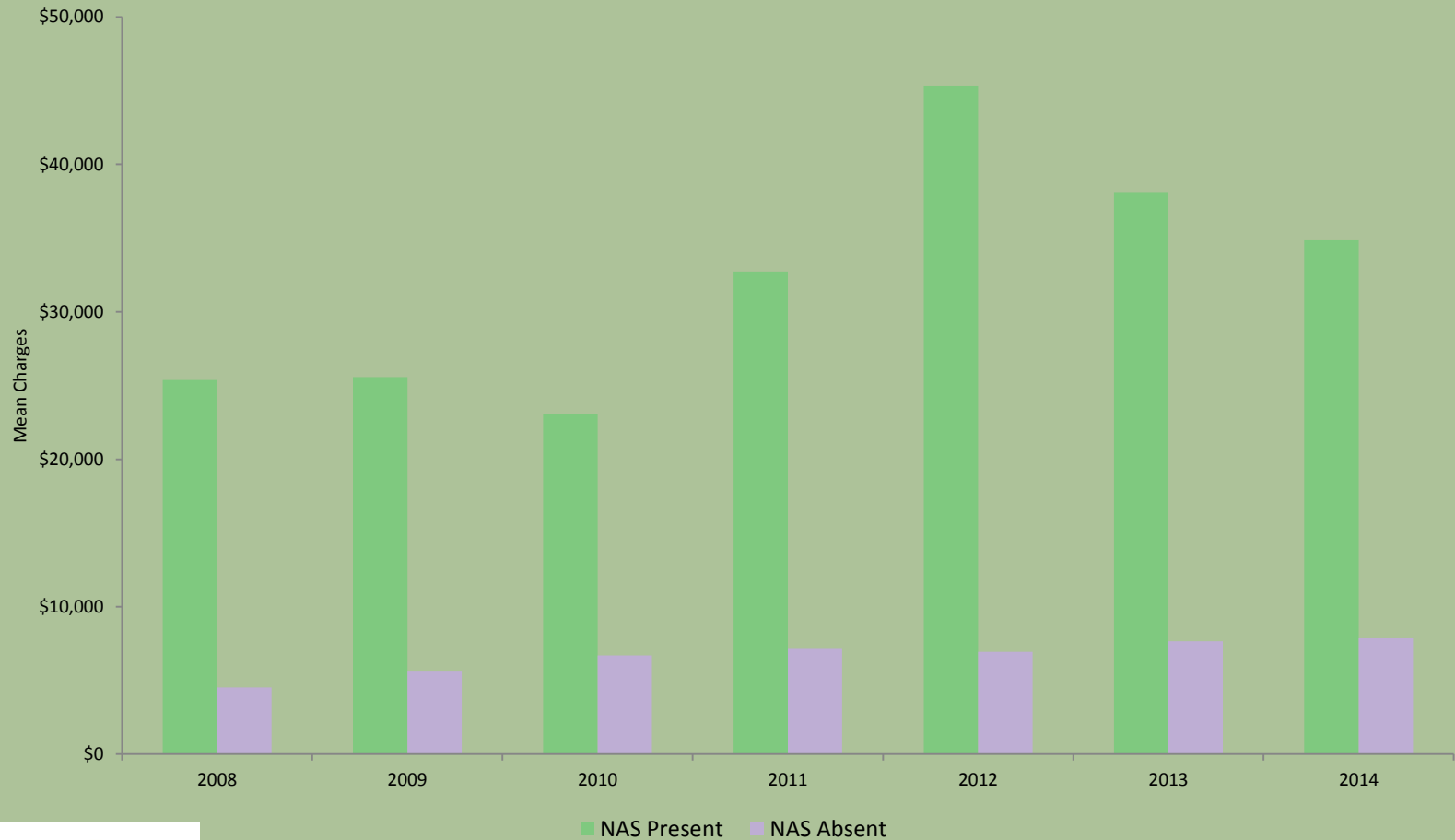


Figure 2. Mean Charges by Drug Withdrawal Syndrome (NAS; ICD-9-CM: 779.5), Montana Residents Liveborns, 2008-2014, Montana Hospital Discharge Data System



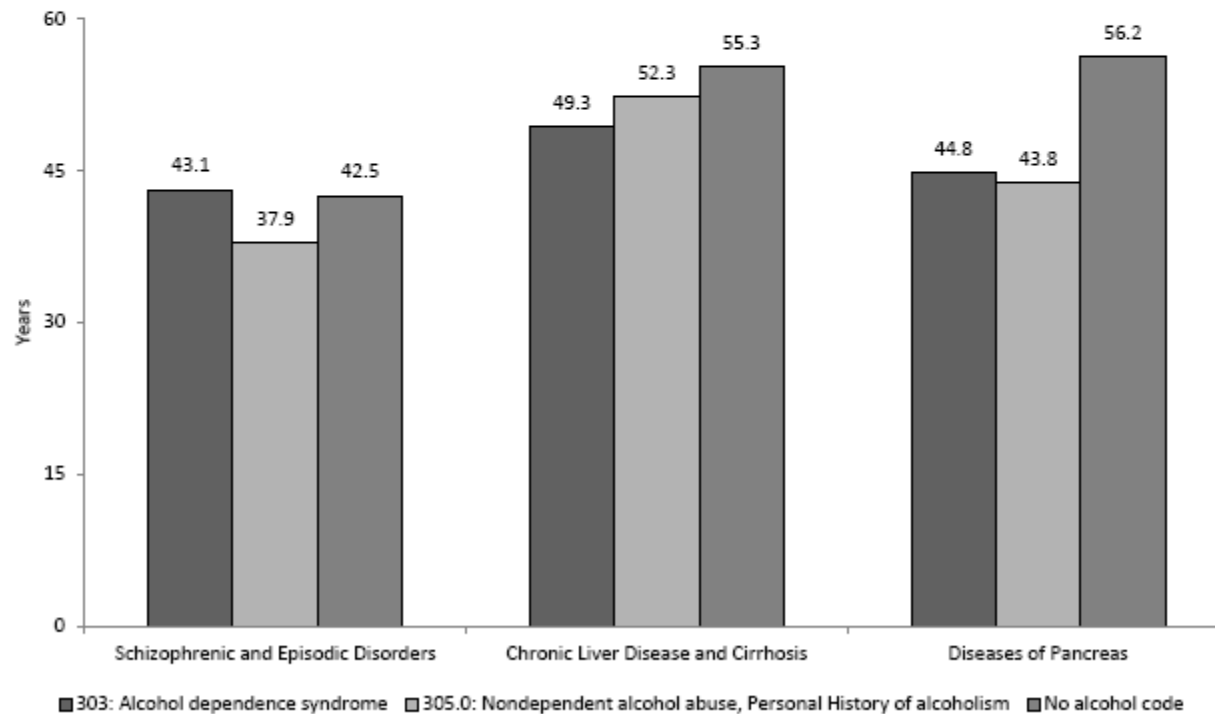


# Reports

- Alcohol Abuse
  - Chronic conditions - admitted at much younger age (10 years)
  - Different payer mix



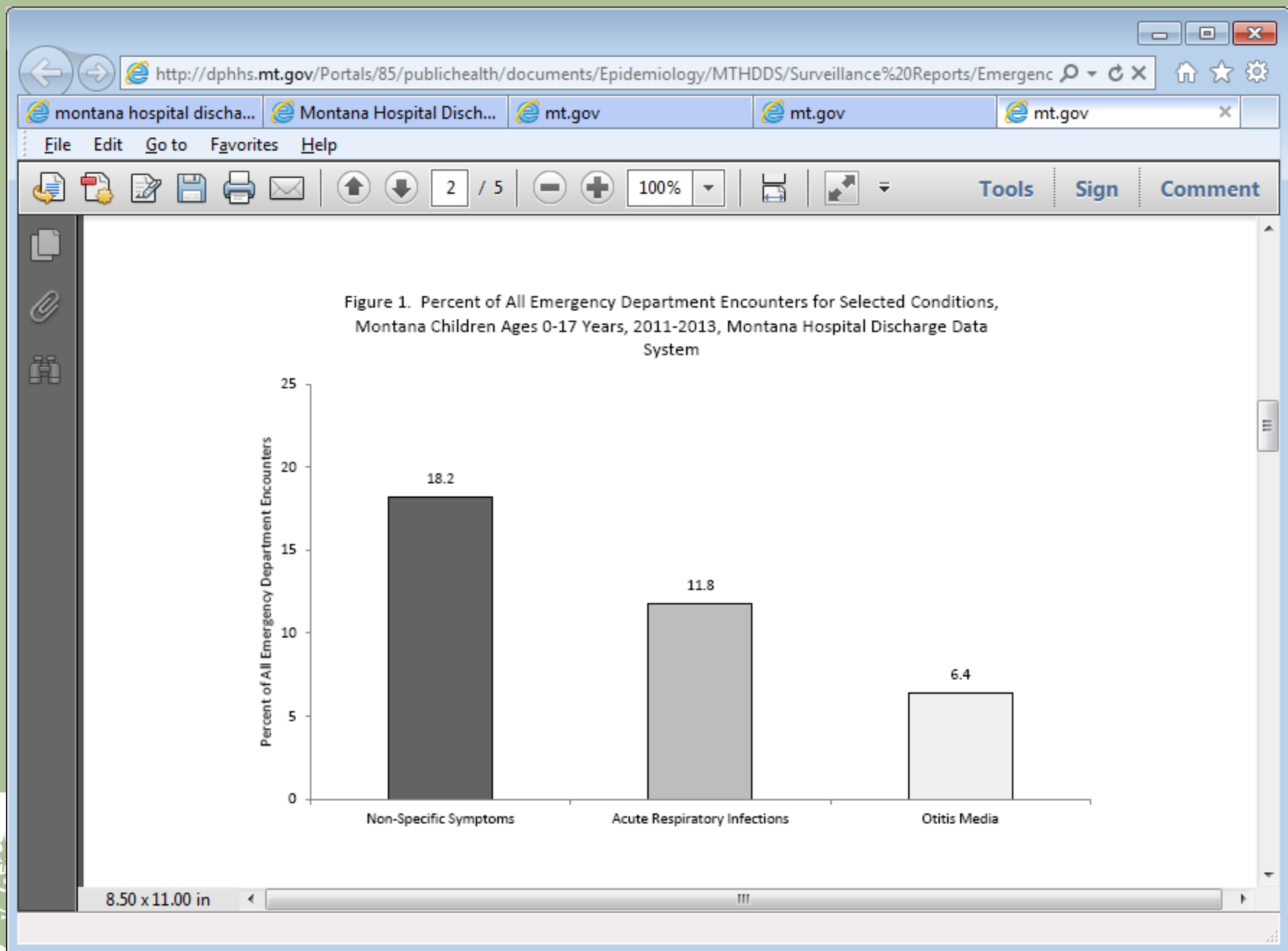
Figure 2. Mean Age for Admissions with Indication of Alcohol Dependence or Abuse,  
Montana Hospital Discharge Data System



# Reports

- Non-urgent utilization
  - About a quarter of pediatric utilization
  - Treatable by physicians or in urgent care

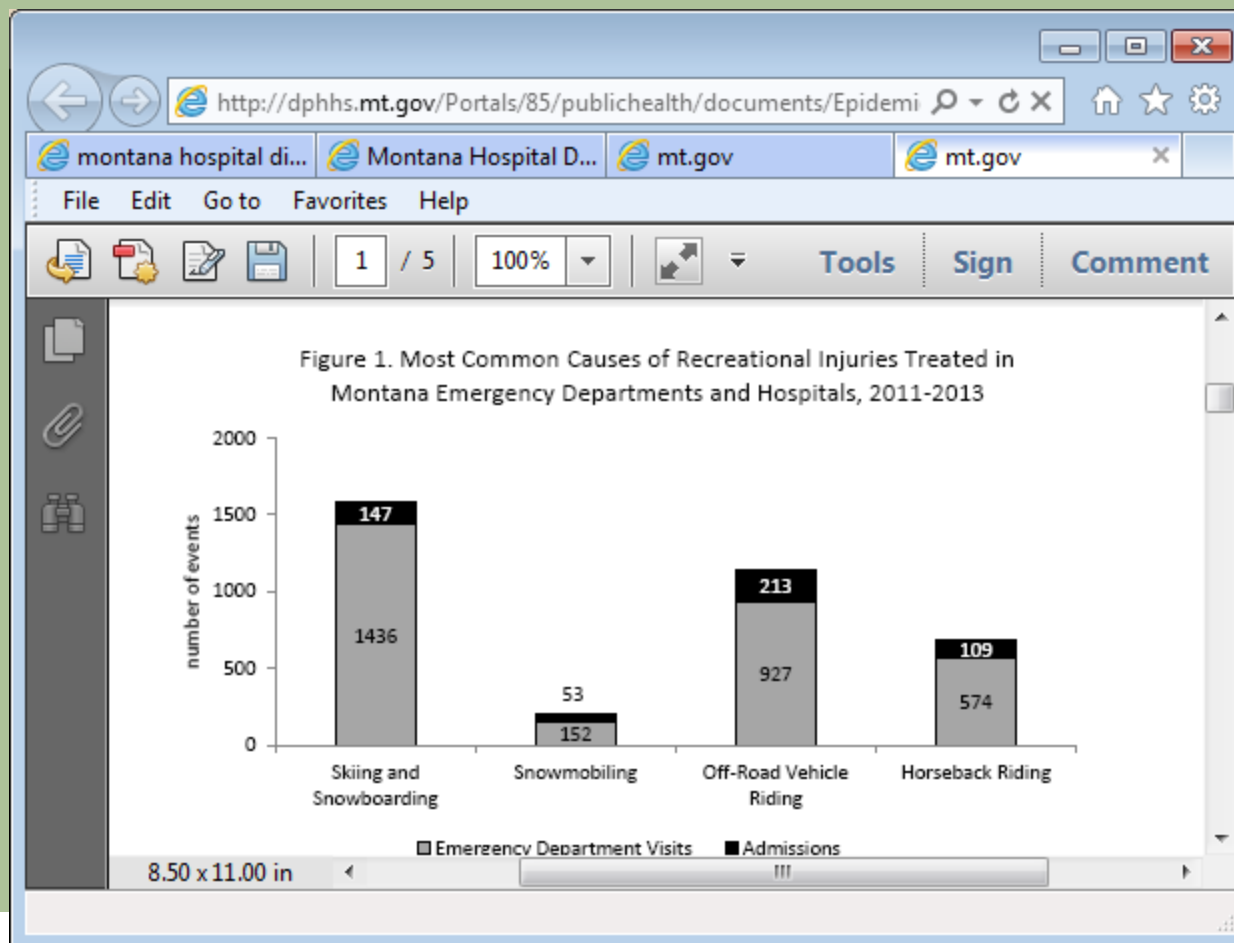




# Reports

- Outdoor recreation
  - About 500 injuries a year from skiing and snowboarding
  - Off road vehicle injuries are nasty





# Data Requests

- Pedestrian injuries
- Heatstroke
- Falls in older adults
- Stroke admissions
- Abusive head trauma (AHT)
- Stroke treatment







# For More Information

- Contact Cody L Custis, Epidemiologist –  
Montana Hospital Discharge Data  
System, [ccustis@mt.gov](mailto:ccustis@mt.gov)



